

METHOD FOR PURIFYING MATTER CONTAMINATED WITH
HALOGENATED ORGANIC COMPOUNDS

ABSTRACT

A method for purifying matter contaminated with a halogenated organic compound is disclosed. The method includes the step of adding a reducing agent and a nutritional source for a heterotrophic anaerobic microorganism to the contaminated matter. The reducing agent is reduced iron, cast iron, iron-silicon alloy and so on, or a water soluble compound. A combination of chemical reactions with microorganisms allows to decompose the halogenated organic compound. The nutritional source including an organic carbon and 20 to 50 percent by weight of an oxidized form of nitrogen is added, thereby preventing by products of the decomposition such as generation of noxious gases and decoloration of soil. A method includes the steps of mixing a reducing agent and a nutritional liquid with the contaminated matter, wherein the mixing step including a step of adjusting the contaminated matter at pH ranging from 4.5 to 9.0; and keeping the mixture in a condition that air hardly penetrates through a matrix, thereby allowing to uniformly mix a large amount of the contaminated matter.